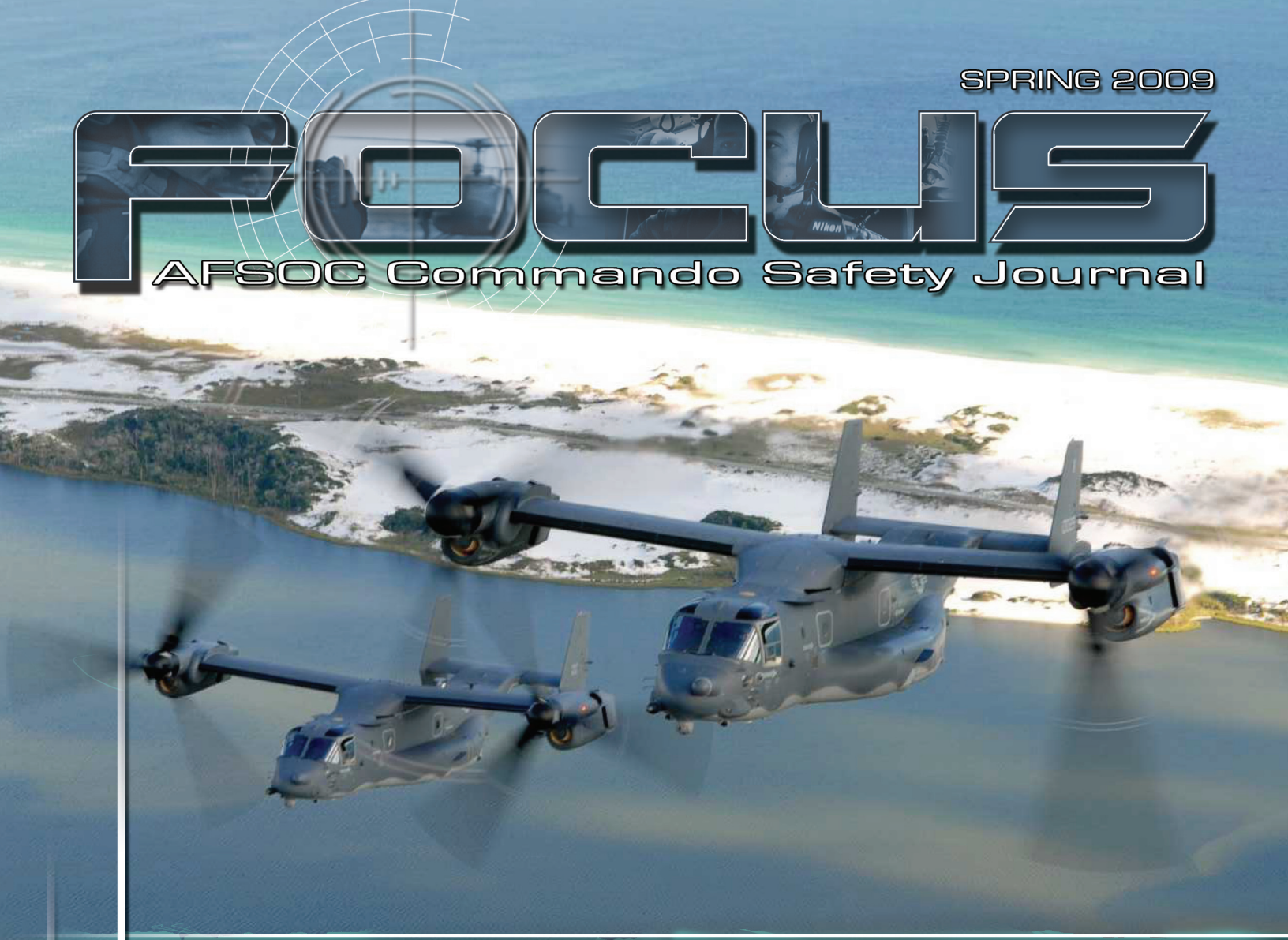
SPRING 2009

# FOCUS

AFSOC Commando Safety Journal



## IN THIS ISSUE . . .

# FOCUS

AFSOC Commando Safety Journal

*Spring 2009*
*Volume XIIII, Number 1*

**Lt Gen Donald C. Wurster** — **Commander**
**Col Brian McNabb** — **Publisher**
**Sharon Blalock** — **Production Manager/Editor/ Graphics**

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## On the cover...

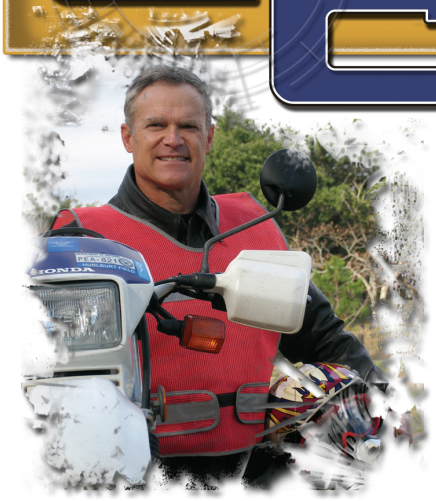
**Photo by SrA Julianne Showalter**

*Two CV-22 Ospreys from the 8 SOS fly over the coastline near Hurlburt Field, FL*

# Features

# Director's Corner

COLONEL BRIAN McNABB



We have a new administration in office and in honor of the event maybe it's a good time to conduct a "State of the Union" for AFSOC as it applies to safety. There is a lot of good news and some not so good. In an attempt to build you up before the cold slap of reality, I'll begin with the good news. We have surely come a long way on the flying side of the house since the dark days of 2005. That year we (AFSOC) led the AF in Class A flight mishaps (those resulting in a fatality or costs greater than $1 million). With superior leadership, vision and direction from the AFSOC Commander down to individual aircraft commanders and crews we were able to perform a 180 degree course reversal for 2006 and led the AF with its lowest Class A mishap rate (zero) while garnering the Daedalian Award for flight safety excellence.

We have had only one Class A flight mishap since 2006 and that was attributed to equipment failure on one of our veteran, warhorse MH-53s. Lt Gen Wurster said it was just doing its best to avoid that final trip to the bone yard and retirement. Thanks to some superior airmenship and crew coordination all crewmembers managed to get out of the crash relatively unharmed. (see FOCUS Winter 2008 article Koren Kolligian Jr. Winner).

On the ground, on-duty side we previously suffered some embarrassing crane mishaps costing about $3 million. We also saw a disturbing trend in Class C mishaps ($20K - $200K) that could be grouped into a category of failure to follow published guidance (T.O.s, AFIs, checklists, etc). Again, leadership involvement in the form of a significant investment in Maintenance Risk Management education is hopefully reversing that trend.

Our heretofore unvarnished record of zero reportable weapons/explosives mishaps continues. Crossing our fingers to continue this record is not enough. Continued vigilance, leadership, discipline and risk management will keep us on track.

Enough for the patting on the back portion of this article. Our disturbing trends are pointing to off-duty mishaps. We had an absolutely horrible year last year with three Class A mishaps resulting in four fatalities. This year we have already suffered three mishaps resulting in three more fatalities. The loss of each and every one of these Air Commandos is tremendously painful from both a personal and Air Force perspective.

What can we do to reverse this trend? It will take a joint effort from individuals, wingmen and supervisors. We must all take personal risk management as seriously as we do risk management in the workplace. How often have we experienced those near misses, but for the grace of God could have resulted in a disastrous mishap? What about drinking and driving when you thought you could handle it ...because you're such a good driver or ....really haven't had that much to drink? What about the time you actually fell asleep at the wheel on the long trip and fortunately snapped awake as you were running off the road? How about working with power tools without the appropriate PPE? You fill in your own blanks here. However, we are not a command of individuals alone. We as wingman and supervisors need to continuously look out for our fellow Air Commandos. Our responsibilities do not stop at the gate. Supervisors and leaders need to embrace the responsibility to keep our Airmen safe 24/7/365. An Airmen lost off-duty is an Airmen lost, period. Our supervisors cannot do it alone. They must be able to rely on the support of the unit's wingmen to assist him in this endeavor. Would you like to have your peers look out for you and potentially save your life? Please, please return the favor. After a mishap is the wrong time to think about what you could have done.

# Readers' COMMENTS

## Publisher's Note:

Please send us your comments and suggestions on our publication.

In addition, we welcome articles and photos for possible inclusion in the magazine. We ask that the submissions relate to safety in some fashion, whether there was a positive or negative outcome.

An electronic version of FOCUS can be found on the Air Force Portal under MAJCOM/ AFSOC/Sub Organizations/AFSOC Headquarters/AFSOC/SE - Safety.

The public site where we can be found is: http://www.afsoc.af.mil

**Readers may submit comments and articles to: Editor, *Focus*, HQ AFSOC/SEP, 229 Cody Ave., Suite 102, Hurlburt Field, Florida 32544-5312.**

**DSN 579-5934/Commercial (850) 884-5934/Fax 2883, or e-mail: afsoc.sep@hurlburt.af.mil. Include your name, unit address, phone number, fax number, and E-mail on all submissions.**

# View from the Top

By Colonel Gregory Lengyel
1 SOW Commander

## *That's MY Job!*

Managing risk is tricky business. After all, we're talking about intentionally making a decision to accept some level of risk based on the task at hand. If zero risk was the standard we would never get off the ground.

Risk management is a fluid process that must address the mission's risk from beginning to end, that must be flexible when the mission changes, and must be assumed at the appropriate level. Identifying risk is the responsibility of the individuals designated to execute the mission. Mitigating risk is a shared responsibility between supervision and those who identified the risk. Accepting risk and determining the acceptable level of risk, is the commander's decision. The commander need not be present to make every risk management decision. However, individuals executing the mission must understand their commander's intent with regard to "what is the threshold for acceptable risk on this mission."

Think about a night tactical formation training sortie. The crew spends hours planning the mission so the aircraft commander can brief all that's going to happen: RAVEN 55 will lead to the air refueling track, execute a wet contact, the tankers will loop around and do another rendezvous, then leave for their mission. RAVEN 22 will assume lead out of the refueling track to the LZ and then swap lead on the ground...RAVEN 55 has 3 checkrides to complete at the LZ and RAVEN 22 has 2 checkrides on the refueling track...then RAVEN 55 will take the lead again...and so it goes. The planning is solid, the brief is solid, the risk is identified and the ORM sheet is signed, the orders are signed, the weather is good, and

then RAVEN 22 has a problem on engine start. Three-hour ETIC. Ok... we'll swap Smith to RAVEN 55, take Reynolds and Murphy off, pick up Jones and Lewis at the mid-point, and then RAVEN 22 can meet up with us later.

Great plan, solid discussion, ready to go! Risk is mitigated because we're down to one aircraft so the mission is easier. Really? Is that what the DO signed up for when he/she signed those orders? The DO is approving that mission by taking into account the commander's intent for the acceptable level of risk on a local training sortie. Did the DO want Jones flying with Smith? Did the DO want Lewis with Jones? Sure, they're current and qualified, but is the crew composition what the DO signed up for? The DO or commander signing the orders has a job to mitigate risk by ensuring that particular crew is capable of that particular mission. The approval for flight may be based on clear skies, but if the weather moves in, the same crew may not be approved. The person who signs those orders is accountable for the lives on that mission. The DO/CC is specifically selected for that position by senior leadership because he/she possesses the skills and maturity to make those decisions and assume the associated risks.

Risk management must be a shared responsibility amongst all of us to identify, mitigate, and assume risk for the mission at hand. As a commander, I need to ensure my crews understand the acceptable level of risk for a given task. Your job as an Air Commando is to understand the commander's intent to mitigate risk at appropriate levels.

Centralized control and decentralized execution is a key tenant of airpower. I do not expect an aircraft commander to radio back for permission to continue a combat mission when they see unexpected enemy ground fire. However, when the risk increases due to training demands like those in the scenario above, or while conducting the face-to-face briefing with supported ground forces and the nature and risk of a combat mission changes significantly, don't think it's your responsibility to raise the approved threshold of acceptable risk for a given task...that's MY job.

# AFSOC ANNUAL

## Primary Duty Flight Safety Officer

**Maj Erin Z. Bender**

**1st Special Operations Wing**

**Hurlburt Field, Florida**

## Additional Duty Flight Safety Officer

**Capt Eric B. Johnson**

**17th Special Operations Squadron**

**Kadena AB, Japan**

# 2008 SAFETY AWARDS

## Primary Duty Flight Safety NCO

**MSgt William H. Keely**

**27th Special Operations Wing**

**Cannon AFB, New Mexico**

## Additional Duty Flight Safety NCO

**No Photo Available**

**SSgt James Z. Johnson**

**17th Special Operations Squadron**

**Kadena AB, Japan**

# AFSOC AWARDS

## Primary Duty Weapons Safety

**TSgt Jeffery T. Martin**

**352d Special Operations Group**

**Mildenhall AB, UK**

## Additional Duty Weapons Safety

**MSgt Russell N. Louk**

**24th Special Tactics Squadron**

**Pope AFB, North Carolina**

## Ground Safety Representative

**SSgt Chad O. Maddox**

**353d Maintenance Squadron**

**Kadena AB, Japan**

## Ground Safety Technician

**SSgt Calvin B. Grade**

**353d Special Operations Group**

**Kadena AB, Japan**

# AFSOC AWARDS

## Additional Duty Safety Manager

**SSgt Tori L. Temple**

**1st Special Operations Support Squadron**

**Hurlburt Field, Florida**

## Safety Office of the Year

**1st Special Operations Wing, Hurlburt Field, Florida**

## Accident-Free Flying Hour Award

**1st Special Operations Wing: 4 SOS, 6 SOS, 8 SOS, 9 SOS, 15 SOS**
**27th Special Operations Wing: 73 SOS, 318 SOS**
**352d Special Operations Group: 7 SOS, 67 SOS**
**353d Special Operations Group: 1 SOS, 17 SOS**
**193d Special Operations Wing: 193 SOS**
**919th Special Operations Wing: 5 SOS**

# Ride'n Along the Emerald Coast on My Custom Chopper

Our interview with Mr. Bill Clausen, AFSOC/A6OI

***"Look Twice Save a Life, Motorcycles are Everywhere"***

That's a bumper sticker I saw on a car recently. Here in Northwest Florida, home of the Air Commandos, that statement certainly holds true.

Over the past several years AFSOC has seen a steady increase in the number of vehicle mishaps within the command. Over the last year we have also seen an increase in the severity of these mishaps. In an attempt to educate our Airmen we are adding a "vehicle mentor" piece to our publication. Future editions may also contain a "negative experience" or learned" perspective. Please let us know what you think by sending in your comments. Onto the interview!

**Why did you decide to build/ paint your own bike and how long did it take you?**

It's a hobby that took me 2.5 months from start to finish.

**What would you say is the coolest thing about your bike?**

It's 113" long with the seat being only 20" from the ground....Long, Lean, and Mean!

## What additional safety features have you added to your bike?

Yellow spider lights--two shine on the rear tire, one on the motor, one on the transmission, one on the front tire, and one along the bottom.

## What is your standard PPE?

Approved helmet with an added orange LED reflector on the back of it to be seen better at night, gloves, over the ankle boots, glasses with foam, long pants and long-sleeved padded reflective jacket. On base, I add the reflector vest over my jacket. Off base, I wear everything the same, except I add an additional reflector belt, worn cross-wise.


## From your experience, what safety advice do you have for other motorcycle riders?

Be a defensive driver at all times. 1. Take the advanced motorcycle safety course. It will increase your skills significantly in maneuvering and controlling the bike during different weather conditions and what to do when you lose control. 2. Do not drink and drive at all. Most of the riders I know think it is okay to have " a beer" and then ride. This is not okay. You have to be at the top of your game at all times.

## What do you want drivers of automobiles to know about motorcycle riders:

We can't stop any faster than cars, so give us the space you would give a car. Also, our cycles are not loud just to be loud. We want you to hear us so you know

we are there since most of our accidents involve cars who just didn't see us.

**Where do you typically ride? If on a track occasionally, tell us about the track.**

I'm a street rider, but there is a track in Holt (Emerald Coast Dragway) that you can take your bike to and ride at higher speeds.

**What's the best trip you have ever taken on your bike?**

It was my first long ride. I went with a bunch of my riding partners up to the Outpost, which is a motorcycle destination on weekends. When we pulled in, there were easily several hundred bikes already in the parking lot, but none like the chopper!

**How long have you owned motorcycles:**

Over 40 years of accident-free riding. In the past 5.5 years alone I have logged 45K miles.

See ya on the roads!

**A few specs of the chopper:**

S & S 100 Cubic inch smooth engine

Rear Tire is a 300 x 18"

Front Tire is a standard 21" motorcycle tire

# GET INVOLVED!

## Safety is Everyone's Responsibility

**By Mr. Joe Freese**
**1 SOW/SE**

The 1st Special Operations Wing has implemented a program designed to drive down injury rates and increase operational capabilities.

The Voluntary Protection Program (VPP), created by the Occupational Safety and Health Administration in 1982, is a program designed to hold management accountable for the safety and health of all workers through education, identifying and eliminating hazards, and actively involving all employees in their own protection.

Everyone, from senior leadership to the new airman basic on base needs to be involved in the VPP process. This is not just another "safety program," it's a program everyone needs to be involved in. We are teaching each and every wingman, regardless of rank or pay grade, to identify hazards in the workplace and empower them to be part of the solution. Air Force leaders, we need you to be safe. America needs our full team in the fight.

The VPP process will not create new wing safety programs; instead it will focus on streamlining and enhancing processes that are already in place. The goal of this program is to get each and every one of us to identify hazards followed by an immediate action, ultimately ridding ourselves

of hazards on and off duty.

"Safety is everyone's responsibility and VPP ensures every Air Commando has a voice to make our personnel and base a safer place to live and work," said Colonel Greg Lengyel, Commander, 1st Special Operations Wing.

Simply put, VPP is getting every one of us to actively identify and then take action to rid safety and health hazards, both on and off the job. By implementing VPP, we can and will lower the overall mishap rate as well as increase the health and wellness of both our military and civilian work force.

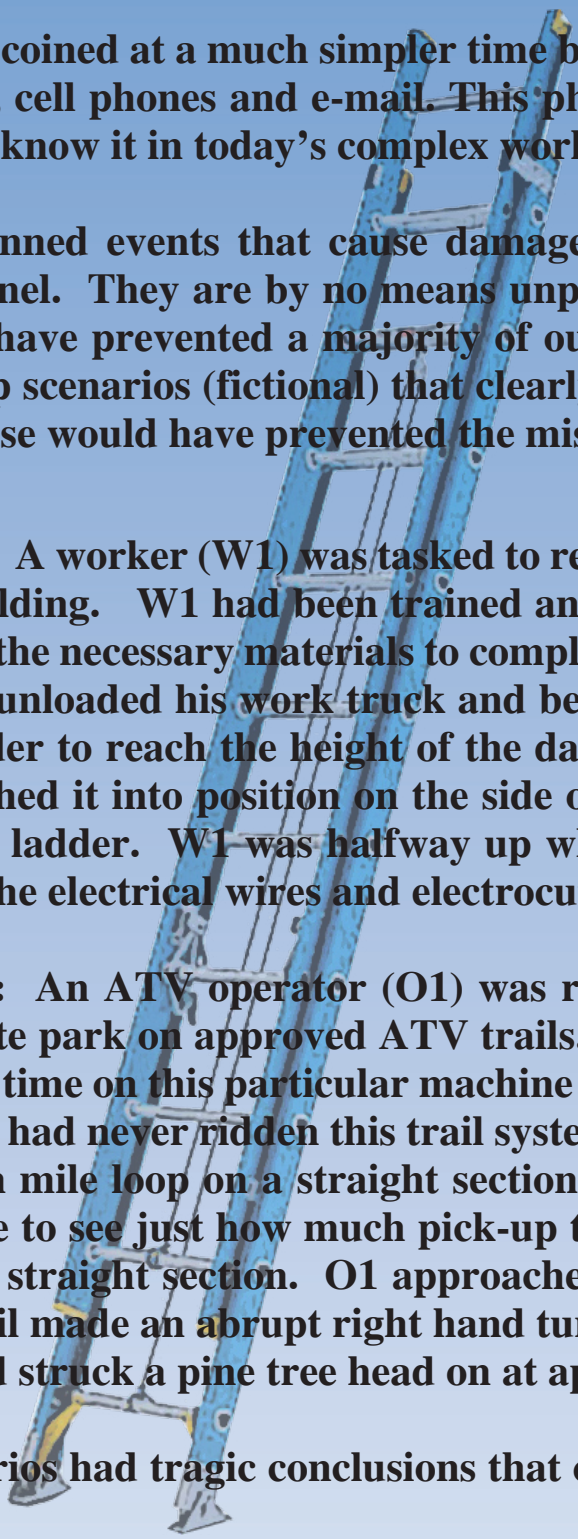
We need everyone to get on board with this new initiative, this includes military members, families, civilians, and contractors. This program is about taking care of one another through empowering our people and complying with all safety driven guidance. Ultimately, our goal is for everyone to not only look out for themselves, but their wingman as well.

All base personnel can be a part of the program by evaluating their home and office for potential safety and health risks. Involvement includes performing self inspections, reporting hazards up the chain of command and implementing a safety training program within your unit.

For more information, you can visit the U.S. Department of Labor Occupations Safety and Health Administration's VPP page at http://www.osha.gov/dcsp/vpp/index.html or the Air Force Safety Center Web site at http://www.afsc.af.mil/ for local information contact Mr. Joe Freese, 1SOW/SE at 884-7613, or by email Joe.Freese@hurlburt.af.mil

# *"Look Before You Leap"*

By TSgt Bryan Bailey, 1 SOW/SEG



**A simple phrase coined at a much simpler time before cars, personal GPS navigation systems, cell phones and e-mail. This phrase is the basis for risk management as we know it in today's complex world.**

**Mishaps are unplanned events that cause damage or injury to Air Force property or personnel. They are by no means unpreventable. Looking before leaping could have prevented a majority of our latest mishaps. Below are a couple mishap scenarios (fictional) that clearly demonstrate where adherence to the phrase would have prevented the mishap.**

**Mishap Scenario 1: A worker (W1) was tasked to replace damaged siding on the outside of a building. W1 had been trained and was experienced at the task. W1 collected the necessary materials to complete the job and headed to the work site. W1 unloaded his work truck and began adjusting the aluminum extension ladder to reach the height of the damaged siding. W1 lifted the ladder and pushed it into position on the side of the building. W1 then began climbing the ladder. W1 was halfway up when the ladder shifted to the left, contacted the electrical wires and electrocuted W1.**

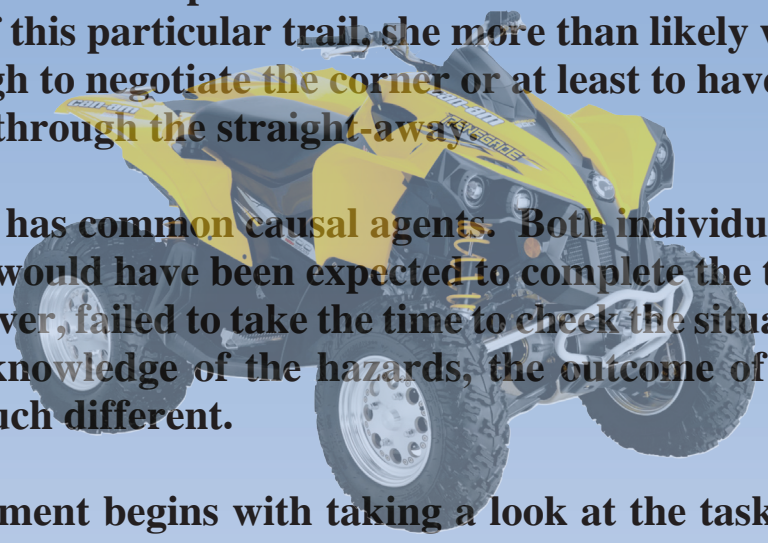
**Mishap Scenario 2: An ATV operator (O1) was riding her 2006 KFX 400 Sport ATV in a state park on approved ATV trails. O1 was an experienced rider, but had little time on this particular machine that she purchased a few months earlier. O1 had never ridden this trail system before. O1 was on the fifth mile of the ten mile loop on a straight section of the narrow trail. O1 cracked the throttle to see just how much pick-up this machine had and accelerated down the straight section. O1 approached the end of the straight away where the trail made an abrupt right hand turn. O1 was unable to negotiate the turn and struck a pine tree head on at approximately 35 m.p.h.**

**Both mishap scenarios had tragic conclusions that could have been avoided.**

**A lapse of good judgment cost both people their lives. What could have been done to prevent these mishaps? What were the causal factors in these mishaps?**

**Let's examine the first scenario. The worker knew his job. He had the tools and the time to perform this task to completion. The worker failed to ensure the ladder was on stable ground with good footing. The worker also failed to use the proper ladder around electrical lines. Both are basic rules of ladder safety the worker most certainly knew. A quick survey of the work area would have revealed the electrical hazards involved. This quick once-over might have caused the worker to use a nonconductive ladder to lessen the risk of electrocution.**

**The second scenario had similar causal factors. The rider was experienced. She had the right equipment for the ride. The rider made the mistake of riding at an excessive speed in an unfamiliar environment. If the rider had knowledge of this particular trail, she more than likely would have been able to slow enough to negotiate the corner or at least to have ridden at an appropriate speed through the straight-away.**



**Each mishap has common causal agents. Both individuals had experience in the task and would have been expected to complete the task to success. Each person, however, failed to take the time to check the situation out beforehand. If they had knowledge of the hazards, the outcome of the scenarios would have been much different.**

**Risk management begins with taking a look at the task and deciding where the hazards lie. Once the hazards are known, the decision to either go on with the task or mitigate the hazards to a more acceptable risk level can be made.**

**Every activity has its own risks. On the job or at home, making sound decisions based on the knowledge of the risks involved is vital to our well-being and overall mission success. Take the time to look before you leap.**

# No Horsing Around with Space Heaters

*By CMSgt Diane Hawthorne, 1 SOMSG/CC M*

While I was participating in a weekend endurance ride in Georgia, I had the up close and personal opportunity to witness risk assessment and poor safety planning in action. Most horse endurance rides are based in austere locations so people become quite creative on heating their living areas and often fail to consider the safety implications. Perhaps it is my military experience where safety, risk assessment, and consequences are second nature that makes me cringe

The root of the incident may very well come from an inherent complacency in the riding community. Space heaters seem to be the darling of those who want heat, particularly those who have purchased or fabricated their own living quarters conversions. These trailers normally do not come with factory installed and certified heating systems. Fellow riders often specifically recommend space heaters without considering the hazards of the environment where they are using them.

So what happened to this trailer? Well, there was this space heater. The rider decided the trailer needed a little warmth while she was out walking and exercising her horse--since she was right in the area. Yes, the space heater was left unattended. Someone saw smoke coming out of the vent and went to investigate. By then, the living area was engulfed due to the space heater catching the bedding on fire. All you RV owners may be asking, “What about the smoke detector "? Nope, none installed. As you can see, the trailer on fire was still connected to its tow vehicle and they were unable to disconnect it. What you can't see, is the trailer next to it had been disconnected so they were unable to move their trailer! In addition, they had propane tanks under the nose of the trailer.

No horses were harmed in the cooking of this trailer

Thankfully, they were unaffected.

Amazingly, the outcome was much less serious than it could have been. No people were injured and, at the time, there were no horses near the trailer. The Ford truck only had melted tail lights and the trailer to the right experienced peeled paint. Obviously the fire engulfed trailer was destroyed to include all the saddles and tack that was stored in the back area. Guess they will get to explain that to their insurance company.

Another interesting observation was the "rubber necker" behavior. People were more than comfortable standing around watching the incident and waiting for the fire truck, without considering the possibility of an explosion and flying debris. (Remember the propane tanks?) I found it best to stand on the opposite side of my trailer about 200 feet away.

In the military we often treat risk assessment as second nature. We know, apply, and expect those around us to also know and apply. This weekend outing gave me a very good opportunity to see how fortunate we are in our safety awareness and how uncommon common sense is. See ya on the trails! (But don't park next to me if you are using a space heater!)

# WHAT ARE THOSE FUNNY LOOKING ARROWS ON THE RUNWAY?

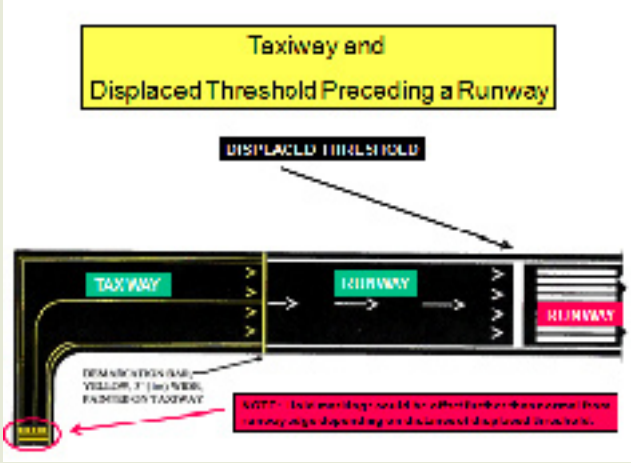
**By Capt Kimberly Trammell, 1 SOW/SEF**

You hear about it in the Middle East...an aircraft lands on a closed runway. The first instinct for every aviator is to say "that would never happen to me!" Aviators return home from deployments and get used to flying in their local area again. So what happens when their home station airfield goes under construction and part of the runway is now closed? Can everyone still say that it would never happen to them? The ability to say "no" does not so quickly fly off the tongue!

When aviators get used to operating out of an airfield for so long they begin to memorize all the visual aim points during the approach and the markings for that specific runway. During a construction phase, what used to be usable runway is now unusable, and previously little known terms such as exclusion zone and displaced threshold become vital to safe operations. When a change like this occurs altering those subconsciously memorized cues, it would be very easy to unintentionally violate the new rules and revert back to what has always been done before. To avoid complacency, a little refresher on standard runway markings.

## Displaced Threshold

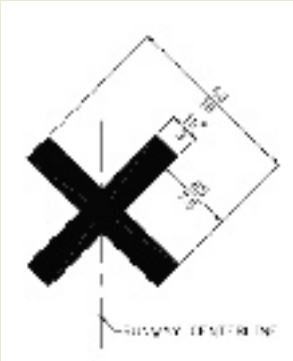
To start, the definition of displaced threshold should be clearly understood. A displaced threshold is a portion of the runway that is available for takeoffs and landings for the opposite direction only. As an example, KHRT has one runway with cardinal headings of 180/360 with runway construction creating a new displaced threshold.



If you are landing on runway 36 at KHRT, you MUST land past the displaced threshold because it is unusable for landing. If you are landing on runway 18, you can roll out onto the displaced threshold or use this area for takeoff in either direction.

### Closed Runway

According to Advisory Circular 150/5340-1J, a closed runway is annotated by yellow X's placed down the runway at 1,000-foot intervals. All runway threshold, designation numbers and touchdown zone markings should be removed. If an aviator sees the X on a runway but the X's are only placed over the runway number markings, this denotes that the airfield is only temporarily closed.



### Safety Aspect

So what do these markings mean from a safety point of view? A displaced threshold is put in place for a reason. Going back to the example of KHRT, construction is in place on the approach end of runway 36. As a safety precaution, an exclusion zone was measured off immediately next to where the construction is occurring. The next portion consists of a displaced threshold to provide a vertical buffer for the construction workers. To land short of the displaced threshold could put those workers at risk due to the disruption of airflow from the landing aircraft. Also, landing short violates published procedures for usable and unusable portions of a runway.

In 2002, the FAA issued a "CERTALERT" because of aircraft landing and taking off on closed runways. A B747-400 taxied to the wrong runway and departed the airfield's closed runway. During that departure the aircraft collided with barriers and construction equipment, killing 82 people. In the Middle East multiple aircraft from all military branches have had an aircraft at one time or another land on a closed runway. Sometimes it is not known why that runway is closed, so the safety of that aircraft can range from rolling over a minor bump in the runway to hitting a barrier or piece of construction equipment.

### The Big Picture

There are those that have and those that will! When an aviator hears about an aircraft landing in a displaced threshold or on a closed runway the correct reply is not "that will never be me." Every aviator probably believes that they know and understand runway markings. If that were the case, then I would not have been called to investigate the tire markings of an aircraft that landed just short of the exclusion zone and well within the displaced threshold of KHRT. The culprit here is not an intentional breaking of the rules. It is complacency among aviators knowing and understanding runway markings the've seen since their first flight in training. When in doubt, if something looks different on a runway, ask another crewmember or inquire the control tower. If something is designated in the NOTAMS that is unclear, ask the controlling base operations so it can be clarified and fixed for future aircraft using that airfield. Safety is not delegated to a certain crew position...it is every aviator's responsibility.

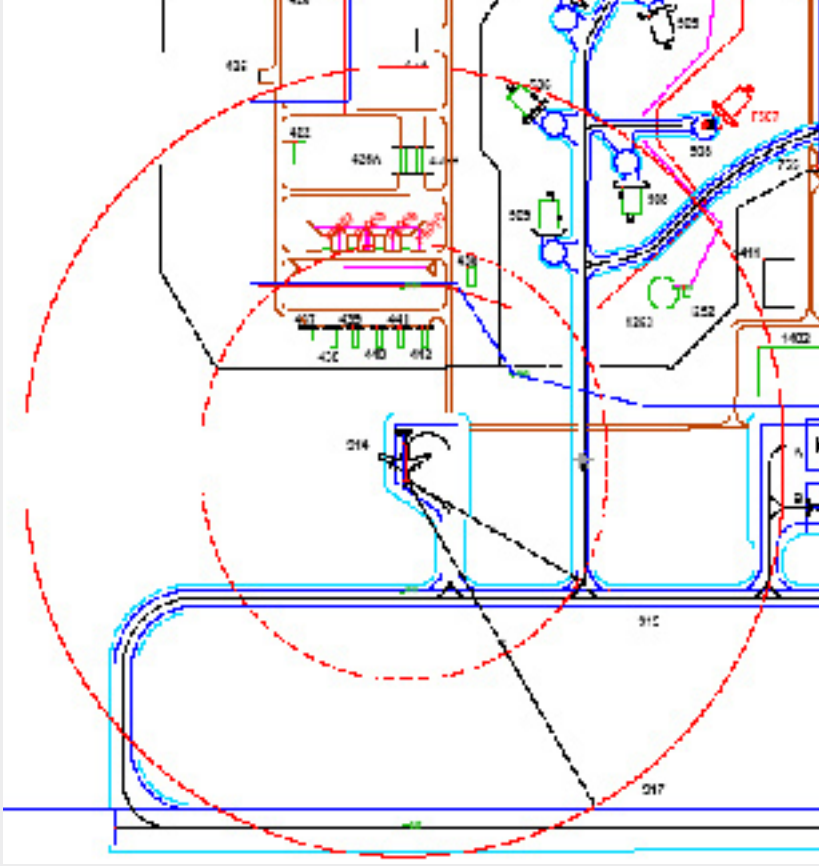
# What's That Thin Red Line for? Explosives Clear Zones

By TSgt Julius Parker, 1 SOW/SEW

Many times a Weapons Safety Manager (WSM) is asked, "What and why are those red lines on our base map? Can we move them back a few feet to make room to build our new dining facility, public highway, school, hospital, or childcare center?" Immediately after our detailed explanation of "Why not", the response to this question is usually "You're telling me...all this vacant area and we can't populate or build on it, you've got to be kidding me?" Of course, not everyone is knowledgeable of military installation maps and the thin red lines encompassing areas such as the flightline, base munitions storage area, EOD ranges, and other areas associated with munitions and/or explosives related operations. In the weapons/explosives safety world these are the infamous Quantity Distance (QD) Arcs, also known as the explosives clear zones.

The DoD STD 6055.9, Ammunition and Explosives Safety Standards and AFMAN 91-201, USAF Explosives Safety Standards" define QD as protection requirements from potential explosion sites (PES) to different kinds of exposed sites (ES). To simplify, as the quantity/type explosives increases, the minimum safe separation distances will also increase. This is why most areas within QD arcs are left vacant except for some people and facilities directly related to the specific explosive operation. As a result of the devastating explosive accident experience in 1926 at the Lake Denmark Naval Ammunition Storage Depot in New Jersey, the US government realized the extreme importance of developing and implementing safe separation distances for explosives. Over the years through hundreds of tests, analyses, and data from other explosives mishaps, QD was developed and implemented. QD separations are based on the minimum acceptable level of damage between a PES and an ES. Simply put, keep those not involved with explosives operations and explosive storage locations at a determined safe distance at all times. Everyone involved in explosive handling, storage, loading, and transportation operations can minimize the risk to our people by applying the Cardinal Principle of Explosive Safety, "Expose the minimum number of people to the minimum

amount of explosives for the minimum amount of time."

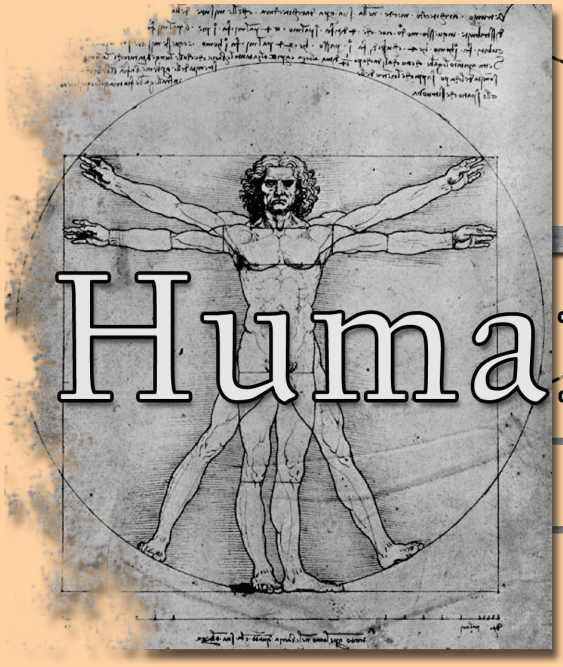


How do we determine where to draw the map's thin red line? Well, I'm glad you asked! Explosives site planning (ESP) is a process used to manage risks associated with explosives activities to ensure the minimum risk and safe separation distances to personnel, equipment, and assets, while meeting mission requirements.

Planning for the proper location and construction of explosives facilities and assets exposed to those facilities is a key element in the ESP process. The safety office, in coordination with civil engineering, fire, legal, health, security, and environmental agencies, are all responsible for ensuring that any limiting factors are addressed and corrected. Any factors that cannot be properly corrected or mitigated are considered departures from established mandatory regulations, rules and applicable laws. These departures from explosives safety standards must be justified and categorized as waivers or exemptions.

Historically, we've used two common methods of ESPs, the old reliable stubby pencil, which has long been replaced by specifically designed computer software producing top quality ESPs. The automated computer software application we use is known as the Assessment System for Hazard Surveys (ASHS). An ASHS database calculates QDs for ESPs based on data inputs by well-trained WSMs. ASHS is a vital tool used in conjunction with operational risk management analyses allowing commanders to weigh the predicted risk against various mission requirements. This, in turn, increases personnel safety and asset preservation achieving the desired mission objective. In any event, ESPs must include all the information required for the reviewer to determine if all explosives safety requirements are implemented. Although the exact contents may vary depending on the facility and/or activity to be sited, the ESPs will generally include a transmittal letter, an AF Form 943, a site location map, and various attachments before being approved at the appropriate command level.

Remember, ESPs will not prevent all mishaps, but they will hopefully minimize the loss of life and property. So, if someone asks you what that "thin red line" is for, you can tell them it can be the difference between life, death, and mission success or failure.



# Human Factors FACTOIDS

*By Maj Heather Alexander, AFSOC/SEH*

## When the Human Factor Got it Right!

So often we read articles and catch discussion tag lines that end "...and the crew screwed up...with the cause pilot error." It doesn't always have to be that way to make a good story.

A 15 SOS, MC-130H crew was submitted for the 2008 Kolligian Trophy for handling an in-flight emergency. After reading this, consider what would have happened if they hadn't worked together as a crew. The aircraft was properly configured for max-effort take-off (consider later if it hadn't been). As the gear was retracting the sound of the engines changed with a resulting reduction in power. Immediately, crew coordination kicked in including the aircraft commander (A/C) announcing the loss of power to the rest of the crew (consider if the A/C had elected to diagnosis the problem without talking to the rest of the crew). The engineer confirmed the bleed air valves were closed and initiated the Four Engine Rollback checklist (consider if the engineer had been 'behind the aircraft'). The A/C, co-pilot and navigator visually, and using the radar, cleared the aircraft of rising terrain (what if all front end crew members had gone "heads down" to troubleshoot the power loss? Yes, this has happened with catastrophic results; google United Airlines Flight 173). The power returned to normal, and the A/C initiated the climb to altitude for a thorough troubleshooting of all systems. There were multiple "opportunities" in this event where one broken link in the safety chain could have ended with a horrible out-

come. Instead, the crew, *the human factor,* got it right.

Another good example - a 3 SOS, MQ-1 crew was nominated for the 2008 AF Chief of Safety Aircrew of Distinction Award after successfully executing the first ever landing of a UAV with a severe electrical malfunction. The MQ-1 suffered massive system failures due to a lightning strike. The deployed Launch and Recovery Element took control of the MQ-1 and planned to either ditch the UAV short of the runway or attempt a landing. An additional pilot joined the team to support the effort. This extra crewmember was the equivalent of a C-130 crew handing over the checklist call-out to a non-flying crewmember. (consider if the two-member crew did not have additional assistance--sure nice to have the extra support). The additional crewmember determined the GPS was unreliable and the A/C switched to a visual approach while the sensor operator verified the navigation system was providing degraded information (consider if the pilot was unaware of these system problems). The pilot successfully landed the aircraft with 10 knots crosswind saving a $4.2 million dollar asset. This aircraft could have easily been written off as the cost of doing business, but instead the crew recovered the asset with zero mission impact and no safety investigation was required. Another example of a crew effectively working together.

Great stories and great examples. So we're counting on you to make sure you "get the human factor right".

# WHAT IS THE MOST DANGEROUS THING YOU DO EVERY DAY?

# DRIVE YOUR CAR

## SPEED + INATTENTIVENESS = DISASTER

## 10 WAYS TO REDUCE YOUR RISK

1. Wear your safetybelt
2. Ensure your vehicle is road safe
3. Don't use your cell phone and drive
4. Drive to the conditions of the road
5. Use situational awareness (SA)
6. Use common sense
7. Focus on the task at hand
8. Don't drink & drive
9. Don't be in a rush
10. Be a defensive driver

COMMANDO SAFETY

**Always Be Patient**

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